LISTING OF CLAIMS

The listing of claims provided below replaces all prior versions, and listings, of claims in the application.

1.   (Original)   A method for testing a quality of communication data received from a system under test (SUT), comprising the operations of:

storing reference test data comprising a plurality of data segments;

receiving degraded test data from the SUT, the received degraded test data comprising a plurality of data segments;

locating the data segments in the degraded test data;

corresponding data segments in the degraded test data to related data segments in the reference test data; and

comparing the data segments in the degraded test data to corresponding data segments in the reference test data using a fixed point operation.

2.   (Original)   A method as recited in claim 1, further comprising the operation of normalizing the degraded test data prior to locating the data segments.

3.   (Original)   A method as recited in claim 2, wherein the degraded test data is normalized utilizing a fixed point Fourier transform.

4.   (Original)   A method as recited in claim 3, further comprising the operation of applying a receive filter to the normalized test data utilizing a fixed point operation.

5.   (Original)   A method as recited in claim 4, wherein the test data is speech data.

6.   (Original)   A method as recited in claim 1, further comprising the operation of generating a perceptual evaluation signal quality (PESQ) result based on the comparison of the data segments in the degraded test data to corresponding data segments in the reference test data.

7.   (Original)   A method as recited in claim 6, further comprising the operation of storing the PESQ result to a quality of service (QoS) data file.

8.   (Original)   A system for testing a quality of communication data received from a system under test (SUT), comprising:

an encoder that encodes reference test data, the reference test data comprising a plurality of data segments;

a decoder that decodes degraded test data received from the SUT in real-time during testing of the SUT, the degraded test data comprising a plurality of data segments; and

a fixed point based logic unit that compares the data segments in the degraded test data to corresponding data segments in the reference test data using a fixed point operation.

9.   (Original)   A system as recited in claim 8, wherein the fixed point based logic locates data segments in the degraded test data.

10.　　(Original)　　A system as recited in claim 9, wherein the fixed point based logic further corresponds data segments in the degraded test data to related data segments in the reference test data.

11.　　(Original)　　A system as recited in claim 10, wherein the fixed point based logic normalizes the degraded test data prior to locating the data segments using a fixed point Fourier transform.

12.　　(Original)　　A system as recited in claim 11, wherein the fixed point based logic applies a receive filter to the normalized test data utilizing a fixed point operation.

13.　　(Original)　　A system as recited in claim 12, wherein the test data is speech data.

14.　　(Original)　　A computer program embodied on a computer readable medium for testing a quality of communication data received from a system under test (SUT), comprising:

program instructions that store reference test data comprising a plurality of data segments;

program instructions that receive degraded test data from the SUT, the received degraded test data comprising a plurality of data segments;

program instructions that locate the data segments in the degraded test data;

program instructions that correspond data segments in the degraded test data to related data segments in the reference test data; and

program instructions that compare the data segments in the degraded test data to corresponding data segments in the reference test data using a fixed point operation.

15 [[16]].   (Currently Amended) A computer program as recited in claim 14 [[15]], further comprising program instructions that normalize the degraded test data prior to locating the data segments.

16 [[17]].   (Currently Amended) A computer program as recited in claim 15 [[16]], wherein the degraded test data is normalized utilizing a fixed point Fourier transform.

17 [[18]].   (Currently Amended) A computer program as recited in claim 16 [[17]], further comprising program instructions that apply a receive filter to the normalized test data utilizing a fixed point operation.

18 [[19]].   (Currently Amended) A computer program as recited in claim 17 [[18]], wherein the test data is speech data.

19 [[20]].   (Currently Amended) A computer program as recited in claim 14, further comprising program instructions that generate a perceptual evaluation signal quality (PESQ) result based on the comparison of the data segments in the degraded test data to corresponding data segments in the reference test data.